

03050108-040

(Duncan Creek)

General Description

Watershed 03050108-040 is located in Laurens and Newberry Counties and consists primarily of **Duncan Creek** and its tributaries. The watershed occupies 76,743 acres of the Piedmont region of South Carolina. The predominant soil types consist of an association of the Cecil-Wilkes-Madison-Pacolet series. The erodibility of the soil (K) averages 0.26, and the slope of the terrain averages 16%, with a range of 2-45%. Land use/land cover in the watershed includes: 74.9% forested land, 12.4% scrub/shrub land, 7.1% agricultural land, 4.5% urban land, 0.7% barren land, and 0.4% water.

Duncan Creek originates near the Town of Ora and accepts drainage from Duncan Creek Reservoir 6B (73 acres), Long Branch, Saxton Branch, Beards Fork Creek, Millers Fork (Sand Creek), and Allison's Branch. Beards Fork Creek and Millers Fork enter Duncan Creek near the City of Clinton. Further downstream near the Town of Whitmire, South Fork Duncan Creek (Ned Wesson Branch) enters Duncan Creek followed by Mulberry Branch and Sandy Branch. There are several ponds and lakes (totaling 231.4 acres) and a total of 134.1 stream miles in this watershed, all classified FW. The lower portion of the watershed resides within the Sumter National Forest.

Water Quality

<u>Station #</u>	<u>Type</u>	<u>Class</u>	<u>Description</u>
B-735	W	FW	DUNCAN CREEK RESERVOIR 6B
B-231	S	FW	BEARDS FORK CREEK AT US 276 (I-385), 3.7 MI NNE OF CLINTON
B-072	P/BIO	FW	DUNCAN CREEK AT US 176, 1.5 MI SE OF WHITMIRE

Duncan Creek (B-072) - Aquatic life uses are fully supported based on macroinvertebrate community data. A very high concentration of zinc was measured in 1995 and a very high concentration of chromium was measured in 1997. Recreational uses are not supported due to fecal coliform bacteria excursions.

Duncan Creek Reservoir 6B (B-735) - Duncan Creek Reservoir 6B is a 73-acre impoundment near the headwaters of an unnamed tributary to Duncan Creek near the top of the watershed in Laurens County. The maximum depth is approximately 15 feet (4.5 m) and the average depth is 5.4 feet (1.7 m). The reservoir's watershed comprises approximately 0.8 square miles (2 km²). Aquatic life uses are partially supported due to pH excursions. Recreational uses are fully supported.

Beards Fork Creek (B-231) - Aquatic life uses are not supported due to dissolved oxygen excursions. There is also a significant decreasing trend in pH. A significant increasing trend in dissolved oxygen concentration and significant decreasing trends in five-day biochemical oxygen demand and turbidity suggest improving conditions for these parameters. Recreational uses are fully supported; however, there is a significant increasing trend in fecal coliform bacteria concentration.

NPDES Program

Active NPDES Facilities

RECEIVING STREAM

FACILITY NAME

PERMITTED FLOW @ PIPE (MGD)

COMMENT

NPDES#

TYPE

LIMITATION

DUNCAN CREEK
TOWN OF WHITMIRE
PIPE #: 001 FLOW: 0.6 (PHASE I)
PIPE #: 001 FLOW: 1.0 (PHASE II)
WQL FOR TRC

SC0022390
MINOR DOMESTIC
WATER QUALITY
WATER QUALITY

DUNCAN CREEK
WR GRACE/BALL MINE
PIPE #: 001 FLOW: M/R

SCG730029
MINOR INDUSTRIAL
EFFLUENT

BEARDS FORK CREEK
CLINTON MILLS/BAILEY PLT
PIPE #: 001 FLOW: 0.101
PIPE #: 002 FLOW: M/R

SCG250146
MINOR INDUSTRIAL
EFFLUENT
EFFLUENT

Nonpoint Source Management Program

Land Disposal Activities

Landfill Facilities

LANDFILL NAME

FACILITY TYPE

PERMIT #

STATUS

CLINTON MILLS - BAILEY PT
DOMESTIC

DWP-019 (SCD0033415575)
CLOSED

CITY OF CLINTON
DOMESTIC

301002-1201(DWP-914)
CLOSED (SCD002394104)

CITY OF CLINTON
DOMESTIC

DWP-026
CLOSED

LAURENS COUNTY SW TRANSFER STA.
DOMESTIC

302401-6001

LAWNDALE MOBILE HOMES
INDUSTRIAL

IWP-101

Mining Activities

MINING COMPANY

MINE NAME

PERMIT #

MINERAL

WR GRACE & CO.
GOODWIN MINE

0692-59
VERMICULITE

WR GRACE & CO.
BALL MINE

0748-59
VERMICULITE

WR GRACE & CO.
BLAKELY MINE

1166-59
VERMICULITE CRUDE ORE

WR GRACE & CO.
LEONARD MINE

0835-59
VERMICULITE

WR GRACE & CO.
COOPER #1 & #2

1064-59
VERMICULITE ORE

Water Supply

***WATER USER
STREAM***

***TOTAL PUMP. CAPACITY (MGD)
RATED PUMP. CAPACITY (MGD))***

CITY OF CLINTON
DUNCAN CREEK

3.5
1.7

TOWN OF WHITMIRE
DUNCAN CREEK

1.0
1.0

Growth Potential

There is a high potential for industrial growth in this watershed, which contains the City of Clinton and portions of the Cities of Whitmire and Laurens. I-26 and I-385 intersect near Clinton and future industrial development will be prevalent along I-385 to the area south of Clinton.